

32. (Twice Amended) A transgenic monocot plant wherein at least a part of said plant comprises a recombinant nucleic acid comprising a promoter active in said part operably linked to a nucleic acid encoding a thioredoxin h polypeptide wherein said promoter is a seed or grain maturation-specific promoter and said thioredoxin h polypeptide is selected from the group consisting of barley, rice, *Arabidopsis*, soybean, wheat, tobacco and Brassica thioredoxins.

40. (Twice Amended) The transgenic plant of claim 32 wherein said thioredoxin h is selected from the group consisting of barley, wheat and rice thioredoxin h.

41. (Amended) The transgenic plant of claim 32 wherein said recombinant nucleic acid further comprises a nucleic acid encoding a signal peptide operably linked to said promoter and said nucleic acid molecule encoding a thioredoxin h protein.

42. (Amended) The transgenic plant of claim 41 wherein said signal peptide targets expression of the thioredoxin h polypeptide to an intracellular body.

77. (Amended Twice) A transgenic monocot seed or grain comprising a recombinant nucleic acid comprising a promoter active in said seed or grain operably linked to a nucleic acid molecule encoding a barley, rice, *Arabidopsis*, soybean, wheat, tobacco, or Brassica thioredoxin h polypeptide wherein said promoter is a seed or grain maturation-specific promoter.

83. (Twice Amended) The transgenic seed or grain of claim 77 wherein said thioredoxin h is selected from the group consisting of barley, wheat, and rice thioredoxin h.

84. (Amended) The transgenic seed or grain of claim 77 wherein said recombinant nucleic acid further comprises a nucleic acid encoding a signal peptide operably linked to said promoter and said nucleic acid molecule encoding a thioredoxin h protein.

85. (Amended) The transgenic seed or grain of claim 84 wherein said signal peptide targets expression of the thioredoxin h polypeptide to an intracellular body.

152. (Amended) The transgenic monocot seed or grain of claim 77 wherein said thioredoxin is *Arabidopsis* thioredoxin *h*.

153. (Amended) The transgenic monocot seed or grain of claim 77 wherein said thioredoxin is soybean thioredoxin *h*.

156. (Amended) The transgenic monocot seed or grain of claim 77 wherein said thioredoxin is tobacco thioredoxin *h*.

157. (Amended) The transgenic monocot seed or grain of claim 77 wherein said thioredoxin is brassica thioredoxin *h*.

REMARKS

Reconsideration is respectfully requested. Claims 32, 40-42, 77, 83-85, 152-153 and 156-157 have been amended. Claim 39 and 82 have been cancelled. After entry of this amendment claims 32-34, 36-38, 40-43, 77, 79-81, 83-86, 112-116, 118-120, 122, 124, 126, 128, 130, 132-136, 138-140, 142, 144, 146, 148, and 150-157 will be pending.

Claim Rejections – 35 U.S.C. § 112, First Paragraph

The Examiner has rejected claims 32-34, 36-38, 41-43, 77, 79-81, 84-86, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148 under 35 U.S.C. § 112, first paragraph as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The Examiner states that the prior art provides only nucleic acids encoding thioredoxin *h* molecules from each of the recited groups of plants, yet the instant claims encompass transgenic plants comprising a nucleic acid encoding any type of thioredoxin, including thioredoxin type *m* or thioredoxin type *f*.